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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,150	09/04/2001	Kenichiro Kami	12-006	9102

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EXAMINER

DOVE, TRACY MAE

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/944,150

Applicant(s)

KAMI ET AL.

Examiner

Tracy Dove

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20,21,23,24 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) 24,26 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20,21,23 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This Office Action is in response to the communication filed on 5/31/05. Applicant's arguments have been considered, but are not persuasive. Claims 20, 21, 23, 24 and 26-28 are pending. Claims 24, 26 and 28 are withdrawn from consideration. This Action is made FINAL, as necessitated by amendment.

Election/Restrictions

Applicant's election without traverse of Group III in Paper No. 10 is acknowledged. Election without traverse of polymer material species "polybutylene terephthalate" and modifier material species " γ -(methacryloxypropyl) triethoxy silane" in the response filed on 11/23/04 is acknowledged. Applicant states claims 20, 21, 23, 27 and 28 read on the elected species. However, claim 28 does not read on the elected species because the claim requires two modifier materials. Claims 24, 26 and 28 are withdrawn because they are directed toward a nonelected species.

Claim Analysis

The claims recite the transitional phrase "composed of", which has been interpreted in the same manner as either "consisting of" or "consisting essentially of," depending on the facts of the particular case. See MPEP 2111.03.

The claims recite "for a non-aqueous electrolyte secondary battery", which is not given patentable weight because it is an intended use limitation.

Claim Objections

Claim 20 is objected to because of the following informalities: the claim contains improper group language. Examiner suggests language such as "...at least one material selected

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from the group consisting of polybenzimidazole ..., polyacetal, polyphenylene ether and derivatives thereof” (group should be closed by a single “and”). See MPEP 2173.05(h).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 20, 21, 23 and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 20 recites “the polymer material is selected from the group consisting of ...and derivatives thereof”, which is not supported by the specification. Examiner requests Applicant point out the section of the specification that supports “and derivatives thereof” in claim 20.

Additionally, claim 20 recites “the polymer material has a backbone chain and a substitutional group” and “a modifier...having a predetermined substituent different from the substitutional group”, which is not supported by the specification as filed. The specification recites “modifying at least a part of the porous film by bonding a predetermined substituent different from the group contained in the polymer material” (top page 5). Therefore, the “substitutional group” is part of the “modifier” material, not the “polymer” material of the claimed invention. The specification discloses “a modifier having a substituent” (top page 6).

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20, 21, 23 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites the polymer material is “modified by a modifier”. Thus the polymer material of claim 20 must be a modified polymer material. Claim 20 should be amended to clearly recite the invention.

Claim 20 recites the limitation “a substitutional group”. It is unclear what “a substitutional group” encompasses and how “a substitutional group” is defined.

To the extent the claims are understood in view of the rejections above, note the following prior art rejections.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20, 21, 23 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamanaka et al., US 5,852,108.

Yamanaka teaches a reinforced resin composition comprising a composite particulate material and a thermoplastic resin material (D). The composite material contains an inorganic

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material (A) and an elastic polymer material (B). The inorganic material (A) may be surface treated with a silane compound such as γ -methacryloxypropyltrimethoxysilane (2:57-3:3). The elastic polymer (B) has functional groups capable of forming chemical bonds with the resin to be reinforced. The term “functional groups” is meant to include functional groups capable of forming covalent bonds through chemical reactions with the thermoplastic resin (D) (3:4-31). The elastic polymer (B) may contain a γ -methacryloxypropyltrimethoxysilane unit (5:52-54). Typical examples of thermoplastic resin (D) include polyester resin such as polybutyleneterephthalate. Yamanaka teaches polybutyleneterephthalate is a preferred thermoplastic resin due the balanced mechanical properties and moldability (8:10-9:19).

Thus the claims are anticipated.

Response to Arguments

Applicant's arguments filed 5/31/05 have been fully considered but they are not persuasive.

Applicant argues Yamanaka fails to teach or suggest “at least a portion of the polymer material is modified by a modifier, the modifier having at least two successive carbon atoms bonded to carbon atoms of the backbone chain and having a predetermined substituent different from the substitutional group”. However, Yamanaka teaches a reinforced resin composition comprising a composite particulate material and a thermoplastic resin material (D). The composite material contains an inorganic material (A) and an elastic polymer material (B). The inorganic material (A) may be surface treated with a silane compound such as γ -methacryloxypropyltrimethoxysilane (2:57-3:3). The elastic polymer (B) has functional groups capable of forming chemical bonds with the resin to be reinforced. The term “functional groups”

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is meant to include functional groups capable of forming covalent bonds through chemical reactions with the thermoplastic resin (D) (3:4-31). The elastic polymer (B) may contain a γ -methacryloxypropyltrimethoxysilane unit (5:52-54). Typical examples of thermoplastic resin (D) include polyester resin such as polybutyleneterephthalate. Yamanaka teaches polybutyleneterephthalate is a preferred thermoplastic resin due to balanced mechanical properties and moldability (8:10-9:19). Applicant does not provide any specific arguments in support of the assertion that Yamanaka does not anticipate the claimed invention. Therefore, there is nothing further for the Examiner to rebut.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is (703) 308-8821. The

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Examiner may normally be reached Monday-Thursday (9:00 AM-7:30 PM). My supervisor is Pat Ryan, who can be reached at (703) 308-2383. The Art Unit receptionist can be reached at (703) 308-0661 and the official fax numbers are 703-872-9310 (after non-final) and 703-872-9311 (after final).



TRACY DOVE
PRIMARY EXAMINER

August 1, 2005